

CDC Issues Interim Recommendations for the Use of Influenza Antiviral Medications in the Setting of Oseltamivir Resistance among Circulating Influenza A (H1N1) Viruses, 2008-09 Influenza Season

Although influenza activity is low in the United States to date, preliminary data from a limited number of states, including Washington, indicate that the prevalence of influenza A (H1N1) virus strains resistant to the antiviral medication oseltamivir is high. Therefore, CDC is issuing interim recommendations for antiviral treatment and chemoprophylaxis of influenza during the 2008-09 influenza season. **When influenza A (H1N1) virus infection or exposure is suspected, zanamivir or a combination of oseltamivir and rimantadine are more appropriate options than oseltamivir alone.**

Local surveillance data are insufficient at this time to determine which influenza subtypes are circulating in Washington and cannot be used to inform physician decision-making regarding the choice of antiviral agents for their patients. The 2008-09 influenza vaccine is expected to be effective in preventing or reducing the severity of illness with currently circulating influenza viruses, including oseltamivir-resistant influenza A (H1N1) virus strains. Since influenza activity remains low and is expected to increase in the weeks and months to come, CDC recommends that influenza vaccination efforts continue.

Interim Recommendations

Persons providing medical care for patients with suspected influenza or persons who are candidates for chemoprophylaxis against influenza should consider the following guidance for assessing and treating patients during the 2008-09 influenza season (see attached Antiviral Guidance Table):

- 1) Consider use of influenza tests that can distinguish influenza A from influenza B.
 - a. Patients testing positive for influenza B may be given either oseltamivir or zanamivir (no preference) if treatment is indicated.
 - b. At this time, if a patient tests positive for influenza A, use of zanamivir should be considered if treatment is indicated. Combination treatment with oseltamivir and rimantadine is an acceptable alternative, and might be necessary for patients that cannot receive zanamivir, (e.g., patient is <7 years old, has chronic underlying airways disease, or cannot use the zanamivir inhalation device), or zanamivir is unavailable. Amantadine can be substituted for rimantadine if rimantadine is unavailable.
 - c. If a patient tests negative for influenza, consider treatment options based on local influenza activity and clinical impression of the likelihood of influenza. Because rapid antigen tests may have low sensitivity, treatment should still be considered during periods of high influenza activity for persons with respiratory symptoms consistent with influenza who test negative and have no alternative diagnosis. Use of zanamivir should be considered if treatment is indicated. Combination treatment with oseltamivir and rimantadine (substitute amantadine if rimantadine unavailable) is an acceptable alternative.
- 2) Persons who are candidates for chemoprophylaxis (e.g., residents in an assisted living facility during an influenza outbreak, or persons who are at higher risk for influenza-related complications and have had recent household or other close contact with a person with laboratory confirmed influenza) should be provided with medications most likely to be effective against the influenza virus that is the cause of the outbreak, if known. Respiratory specimens from ill persons during institutional outbreaks should be obtained and sent for testing to determine the type and subtype of influenza A viruses associated with the outbreak and to guide antiviral therapy decisions. Please call your local health jurisdiction to report suspected or confirmed outbreaks and for assistance with testing. Persons whose need for chemoprophylaxis is due to potential exposure to a person with laboratory-confirmed influenza A (H3N2) or influenza B should receive oseltamivir or zanamivir (no preference). Zanamivir should be used when persons require chemoprophylaxis due to exposure to influenza A (H1N1) virus. Rimantadine can be used if zanamivir use is contraindicated.

For more information on antiviral medications and additional considerations related to antiviral use during the 2008-09 influenza season, visit <http://www.cdc.gov/flu/professionals/antivirals/index.htm>.

TABLE

Interim recommendations for the selection of antiviral treatment using laboratory test results and viral surveillance data, United States, 2008-09 season†

| Rapid antigen or other laboratory test | Predominant virus(es) in community | Preferred medication(s) | Alternative (combination antiviral treatment) |
|--|---|--------------------------------|--|
| Not done or negative, but clinical suspicion for influenza | H1N1 or unknown | Zanamivir | Oseltamivir + Rimantadine* |
| Not done or negative, but clinical suspicion for influenza | H3N2 or B | Oseltamivir or Zanamivir | None |
| Positive A | H1N1 or unknown | Zanamivir | Oseltamivir + Rimantadine* |
| Positive A | H3N2 or B | Oseltamivir or Zanamivir | None |
| Positive B | Any | Oseltamivir or Zanamivir | None |
| Positive A+B** | H1N1 or unknown | Zanamivir | Oseltamivir + Rimantadine* |
| Positive A+B** | H3N2 or B | Oseltamivir or Zanamivir | None |

*Amantadine can be substituted for rimantadine but has increased risk of adverse events. Human data are lacking to support the benefits of combination antiviral treatment of influenza; however, these interim recommendations are intended to assist clinicians treating patients who might be infected with oseltamivir-resistant influenza A (H1N1) virus.

**Positive A+B indicates a rapid antigen test that cannot distinguish between influenza and influenza B viruses

† Influenza antiviral medications used for treatment are most beneficial when initiated within the first two days of illness. Clinicians should consult the package insert of each antiviral medication for specific dosing information, approved indications and ages, contraindications/warnings/precautions, and adverse effects.